

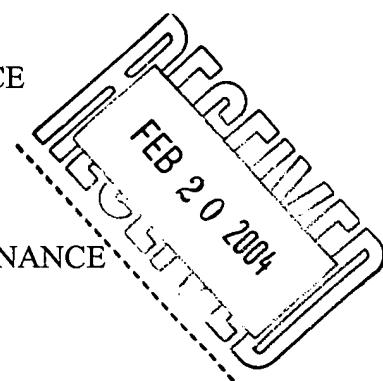


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Blaise deB. Frederick et al. Art Unit : 2859
 Serial No. : 09/909,932 Examiner : Brij B. Shrivastav
 Filed : July 20, 2001
 Title : GENERATION OF SYNTHETIC NUCLEAR MAGNETIC RESONANCE SIGNALS

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

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REPLY TO ACTION OF SEPTEMBER 5, 2003

In reply to the Office Action of September 5, 2003, Applicant submits the following remarks.

Applicant appreciates Examiner's conversations with Applicant's representative. Applicant submits this Reply to clarify the differences between the claimed inventions and the prior art cited by Examiner.

The Patent Claims

The claimed inventions are apparatuses and methods relating to an "active" phantom. This active phantom is not a passive component that merely emits MR signals when excited by radio frequency (RF) pulses in an MR scanner. To the contrary, it is an active component. It is an active component because it generates its own waveform (p. 1, lns. 4-13); indeed, it "provides a direct source of a waveform" (p. 2, ln. 30). This waveform is used to simulate a waveform of a subject undergoing a MR scan. Thus, the active phantom uses this waveform to "simulate FID signals of, e.g., a human brain" (p. 3, ln. 19); "it generates synthetic FID signals that can simulate

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February 5, 2004

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